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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,072	01/23/2001	Liam B. Quinn	M-9137 US	2497

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EXAMINER

PAN, YUWEN

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 07/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,072

Applicant(s)

QUINN ET AL.

Examiner

Yuwen Pan

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15, 17 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/12/04 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 8-11, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al (US006560443B1) in view of Rabe et al (US006138010A).

Per claim 1, Vaisanen discloses a portable computing system with selectable transceiver switching (see column 1 and line 8-14) comprising:

A set of one or more transceivers, each of the transceivers with a unique communication protocol (see column 3 and line 61-column 4 and line 29),

A switch capable of differentiating communication signals and determining and choosing an appropriate transceiver from the set of transceivers to communicate for the computing system (see figure 1, column 6 and lines 36-53);

Art Unit: 2682

A multi-band antenna capable of receiving and transmitting varying frequency signals to the chosen transceiver (see column 6 and lines 54-65); and

Means for prioritizing selection of a type of communication technology (see column 5 and lines 14-26).

Vaisanen doesn't explicitly teach that the transceiver preference being set through software interface with the switch.

Rabe teaches that the switch between two transceivers is controlled by wireless switch software (see column 3 and line 51-column 4 and line 12).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Rabe with Vaisanen such that it is fast and easy to regular switching function between two transceivers.

Per claim 2 and 4, Vaisanen doesn't disclose that the switch is a zener diode or a current limiter device that differentiates upon power transmission. The examiner takes "Office Notice" that it is notoriously well known in the art to utilize a zener diode as a switch, in order to activate or deactivate a transmit mode.

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to utilize a zener diode as a switch such that a transmit mode would be selected or deselected based on the input voltage.

Per claims 8-10, Rabe further teaches that selection of a transceiver is performed by a software driver with a higher level protocol stack and the software driver is instructed by a set of software application of the portable computer system (see column 4 and line 1- 35).

Art Unit: 2682

Per claim 11, Vaisanen further discloses the set of transceiver and the switch are integrated into a circuit card (see figure 4 and column 8 and lines 38-60).

4. Claims 3, 5-7, 12-15, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaisanen et al (US006560443B1) and Rabe et al (US006138010A) as applied to claim 1 above, and further in view of Dvorkin et al (US006249686B1).

Per claim 3, combination of Vaisanen and Rabe doesn't teach an active power sensor device. Dvorkin discloses an active power sensor device (see figure 1 and item 78, column 2 and lines 33-47). It would have been obvious to one ordinary skill in the art at the time the invention was made to enclose the active power sensor device such that adequate signal strength would be implemented.

With respect to claims 5-7, Dvorkin further discloses a lookup table that associated transmission power with each of the transceivers, whereby the switch selects a transceiver from the set of transceivers when a certain power state in the lookup table is detected and the switch selects a transceiver based on a transmitted or received power (see column 2 and lines 1-47).

With respect to claims 12 and 13, Vaisanen further discloses the circuit card connects to a system board of the portable computer system and the circuit card is a mini PCI card (see column 5 and lines 35-55).

Per claims 14 and 15, 19-21, Dvorkin discloses a method of switching between a set of one or more transceivers within a portable computing system (see column 1 and lines 7-20) comprising:

Looking up in a state table corresponding power and frequency values (see column 1 and line 64-column 2 and line 15)

Comparing the characteristic of a signal received signal to the corresponding power and frequency value, and

Selecting a transceiver board capable of processing the received signal (see column 2 and lines 1-26).

It is inherent that the frequency and power of transmitting signal would be adjusted to corresponding receiving signal such that two-way communication is completed within in the same mode (see column 2 and line 41-47).

It is inherent that a switching functionality must be programmed within a chip or a processor, viz. by creating a user interface, the software, to further monitor and control the selection of multi-mode (see column 9 and lines 8-20).

Dvorkin doesn't disclose that means for prioritizing selection of a type of communication technology and that the transceiver preference being set through software interface with the switch.

Vaisanen lucidly teaches means for prioritizing selection of a type of communication technology (see column 5 and lines 14-26).

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Vaisanen with Dvorkin's device such that the mobility of the portable computing device is enhanced.

Rabe teaches that the switch between two transceivers is controlled by wireless switch software (see column 3 and line 51-column 4 and line 12).

Art Unit: 2682

It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Rabe with Vaisanen such that it is fast and easy to regular switching function between two transceivers.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 703-305-7372. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Yuwen Pan
6/30/2004


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